LPD 17 CLASS
LIFE CYCLE ENGINEERING AND SUPPORT MANAGEMENT PLAN
EXECUTIVE SUMMARY

PREPARED BY LPD 17 LIFE CYCLE SUPPORT INTEGRATED PRODUCT TEAM

LPD 17 Class Life Cycle Engineering and Support Management Plan

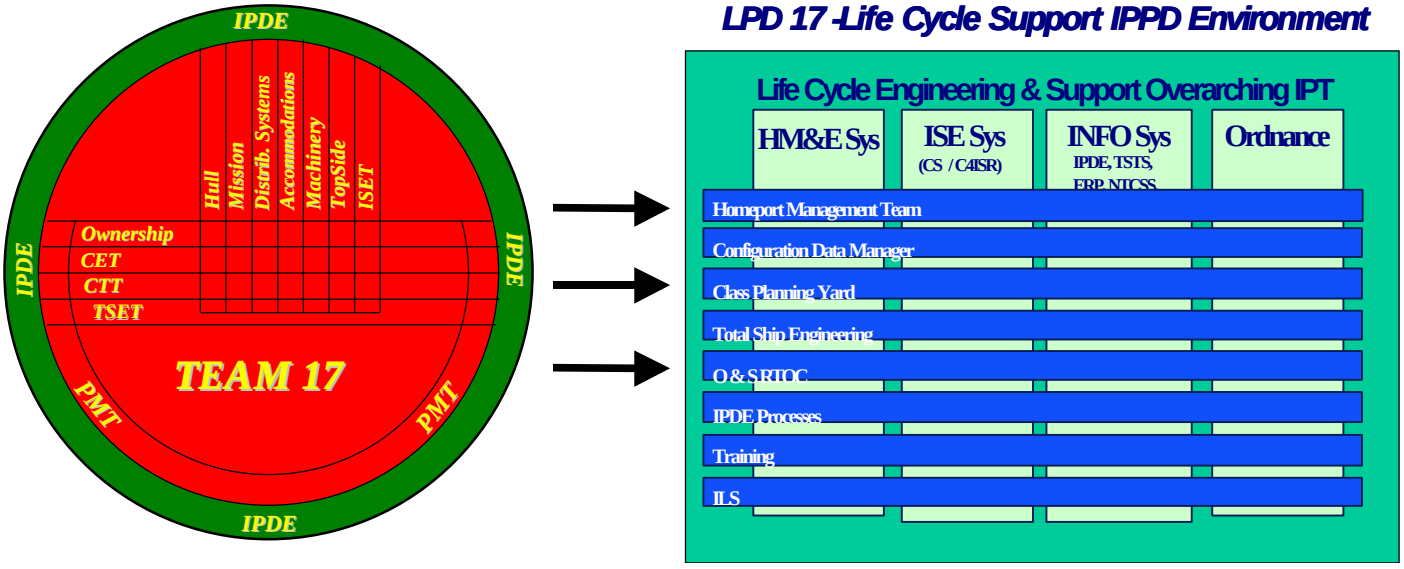
WARFARE CAPABLE | MISSION FLEXIBLE | TECHNICALLY ADAPTABLE | AFFORDABLY SUPPORTABLE

LPD 17 FUNDAMENTAL PRINCIPLES

The integrated Government and Alliance Partnership will build on today's successful ship support practices to enhance Government oversight, preserve robust competition, and ensure continued innovation and cost reduction throughout the LPD 17 Class Life Cycle.

Key Features	Benefit/Rationale
• World-class support approach built on AEGIS successes	• LPD 17 provides opportunity for a step between current practices and DD21
• Total Ship Systems Engineering approach continued from design into Life Cycle	• Complexity and criticality of LPD 17 system of systems best served by an efficient, integrated support approach
• Best practices of both Industry and Government applied and integrated; technical authority preserved	• Best value balance of providers with continuity of support for legacy systems and FSC support for new/unique items
• Integrated Product Data Environment (IPDE) is the foundation for efficiency	• Web-enabled reliable data source and tool set enable process improvements
• Competition and local waterfront control are supported	• Competition spurs innovation and savings; responsive to Fleet needs

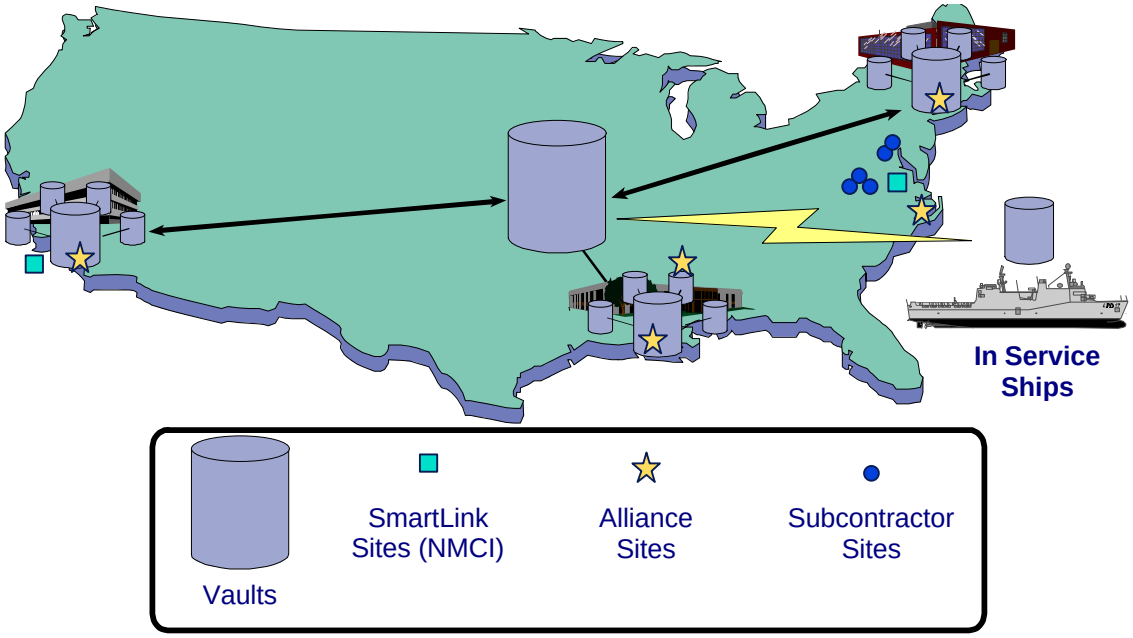
Management Approach



An integrated Government-Industry Partnership will manage Life Cycle Engineering and Support for the LPD 17 Class as a Full Service Partnership, working through world-class providers selected from both the public and private sectors to deliver best-value solutions.

Key Features	Benefit/Rationale
• Integrated Government and Alliance Team to manage the program	• Reduced decision cycle times and reduced management layers
• Alliance partners provide comprehensive management and technical expertise in one structure	• Expertise established during design and construction immediately and continuously available
• Government oversight and technical authority are preserved and supported	• Essential governmental roles are supported with information and access
• Risk management is practiced throughout the LCE&S approach	• Intelligent management of risk reduces cost and encourages innovation
• Integrated management of cost, schedule, and risk based on comprehensive program metrics	• Balanced scorecard approach contributes to optimized decision-making and best value for the Navy

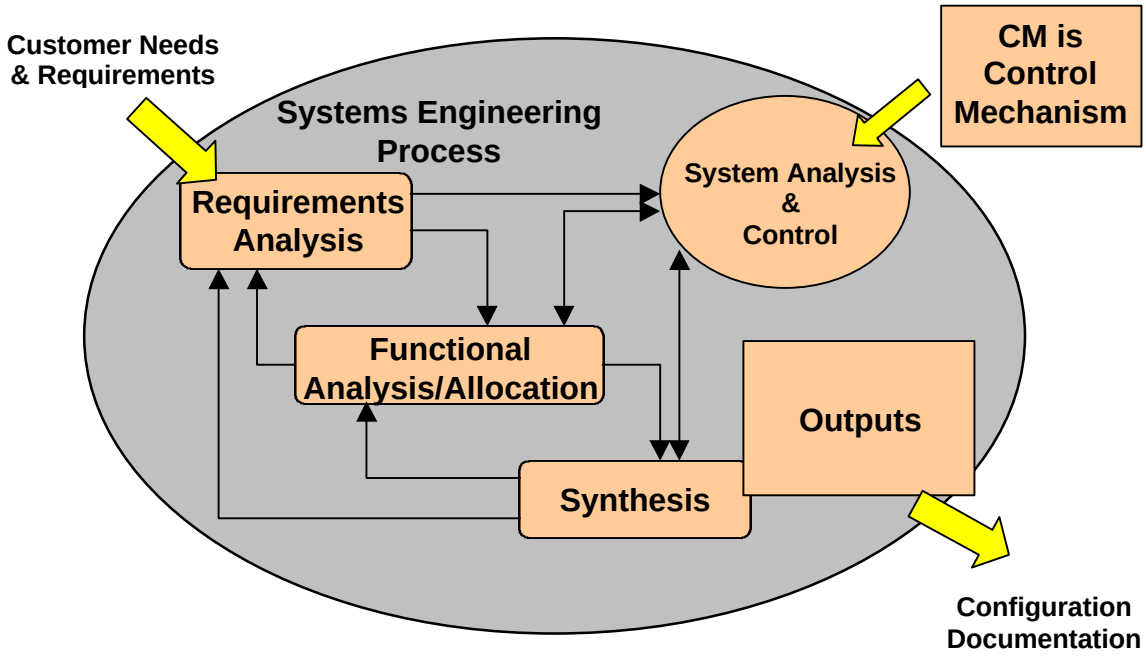
Information Management



The Integrated Product Data Environment (IPDE) provides a robust, comprehensive information management framework, enabling process improvements and world-wide, web-enabled connectivity.

Key Features	Benefit/Rationale
• Product-centered data management based on 3-D CAD models of ship	• CAD models created during design support multiple uses in life cycle
• Open systems design and system scalability	• IPDE infrastructure is readily upgraded and expandable to meet program needs
• Wide area network, web connectivity, and ship-shore interface	• Multiple means of access and connectivity ensure global coverage and responsiveness
• Comprehensive configuration management of data	• Single integrated source of configuration data improves all support processes
• Workflow functionality enables concurrent processes	• Change processing is accelerated and integrated through the use of workflow features of IPDE

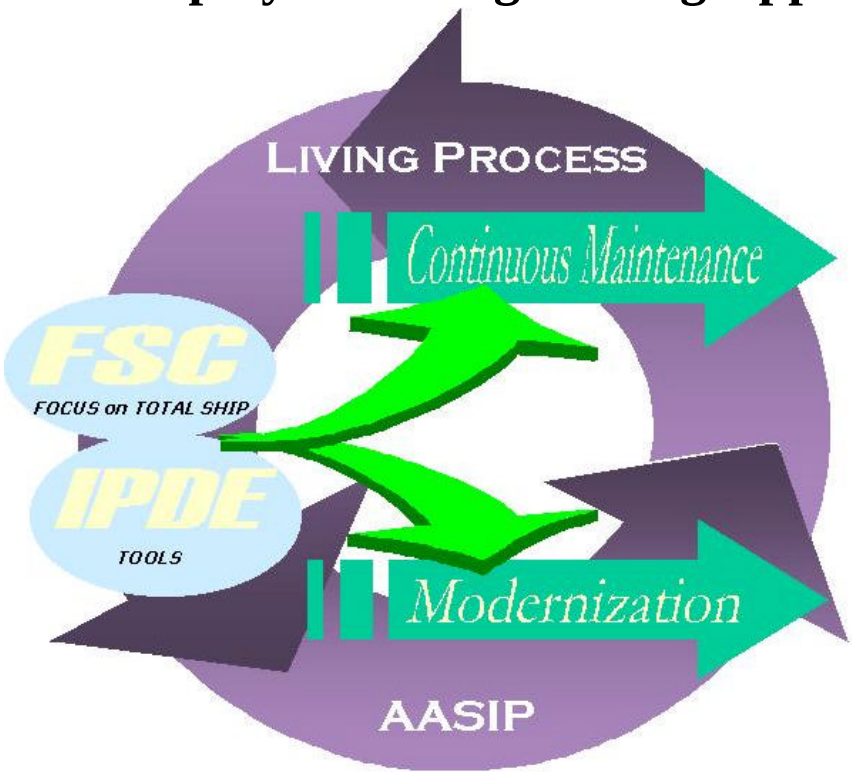
Configuration Management



Supported by the connectivity and integrated data provided in the IPDE, LPD 17 Class Configuration Management will extend the systems engineering approach to efficiently address total ship configuration and integrate with Navy management systems.

Key Features	Benefit/Rationale
• Comprehensive approach to Configuration Management with centralized responsibility	• Consolidation of multiple sources and processes for CM into clear chain of accountability
• Product Model centered approach to CM based in IPDE	• Management of product model and related data vice multiple legacy paper products
• Clear delineation of decision authority enforced with IPDE rules	• Technical authority is preserved and data integrity improved
• Defined integration and interface with Navy management systems	• LPD 17 will integrate with management systems to ensure consistency
• Extension of rigorous Systems Engineering approach into change management	• Essential characteristics and systems integration are preserved and enhanced through integrated management

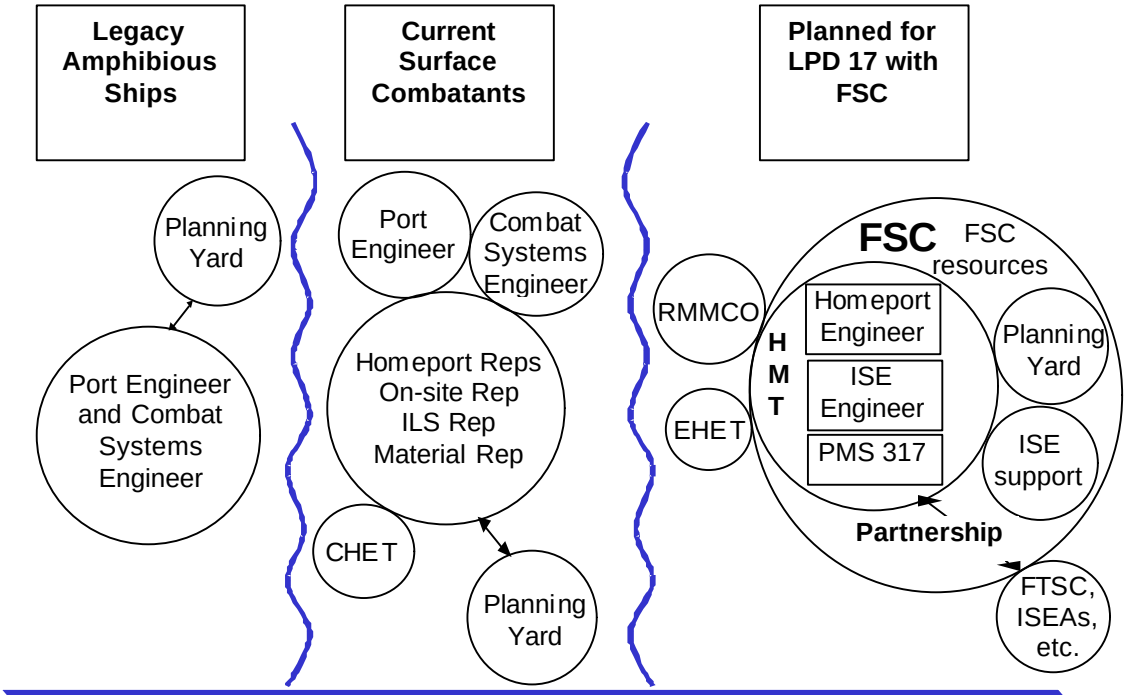
Total Ship Systems Engineering Approach



Total Ship Systems Engineering integrates Maintenance and Modernization planning at the ship system level, ensuring the continued effectiveness, affordability, and interoperability of the San Antonio Class throughout the life cycle.

Key Features	Benefit/Rationale
• Integrated Maintenance and Modernization planning for optimized availability timing and duration	• 30% to 50% reduction in availability durations and dramatically lower growth and rework
• Continuous maintenance planning using condition based maintenance approach	• Reduced downtime and cost; more effective use of availability time
• Integration of Technology Evolution Management, COTS and obsolescence monitoring, and baseline improvements	• Highly integrated systems are actively managed within Amphibious Assault Ship Improvement Plan (AASIP) framework
• Integrated Ship Electronics managed by FSC as ISEA	• Continuity of Raytheon technical excellence into support of systems
• Operating Cycle improvements managed in support of Fleets/TYCOMs	• Notional OPCYCLE will be implemented in support of Fleet and TYCOM needs

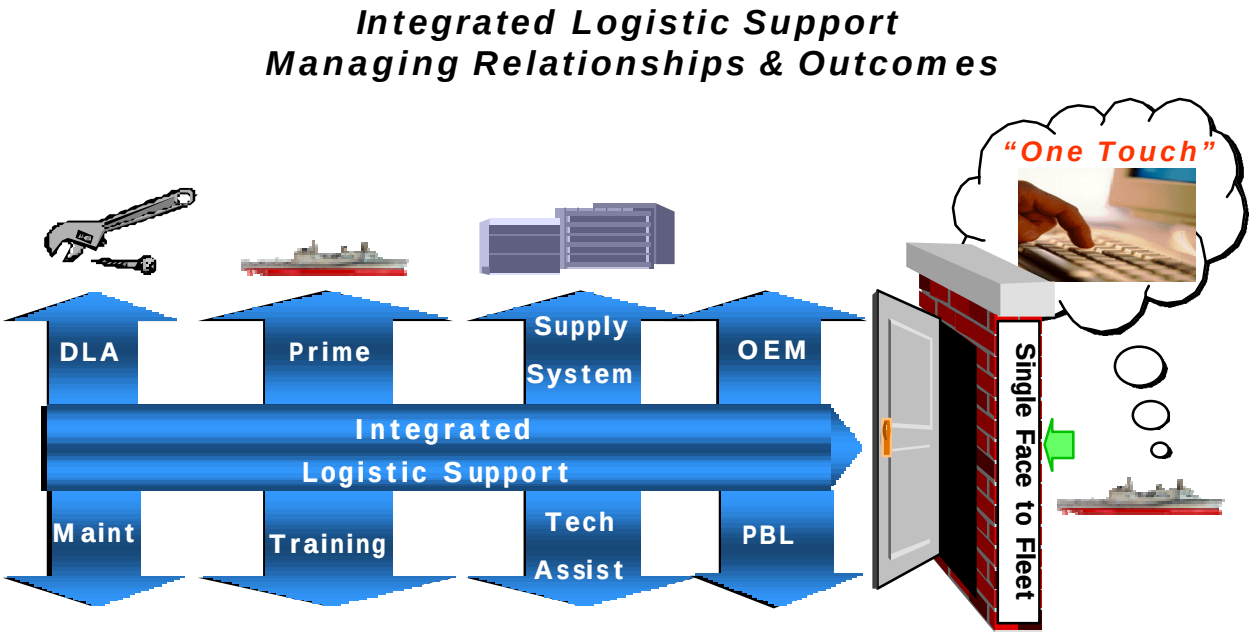
Homeport Management



The LPD 17 Homeport Management Team brings the full range of FSC and Government resources to the waterfront in support of ongoing and emergent requirements by building on existing capabilities and partnering with key stakeholders.

Key Features	Benefit/Rationale
• Integrated, agile team at the waterfront brings the program to the owners	• Responsiveness to Fleets, TYCOMs, and COs backed by depth of FSC
• Functions of current Planning Yard representatives, Port Engineer, and Combat Systems Engineers consolidated within HMT	• Streamlining of organizational interfaces; integration of liaison with technical support provides fast, flexible response to waterfront needs
• Local authority and competition for maintenance execution preserved	• Flexibility and continued innovation and cost effectiveness
• Interfaces and partnerships with key support organizations identified	• Integration with existing support systems leads to balanced solutions
• IPDE provides virtual presence of complete design team	• IPDE functionality enables distributed design and support development

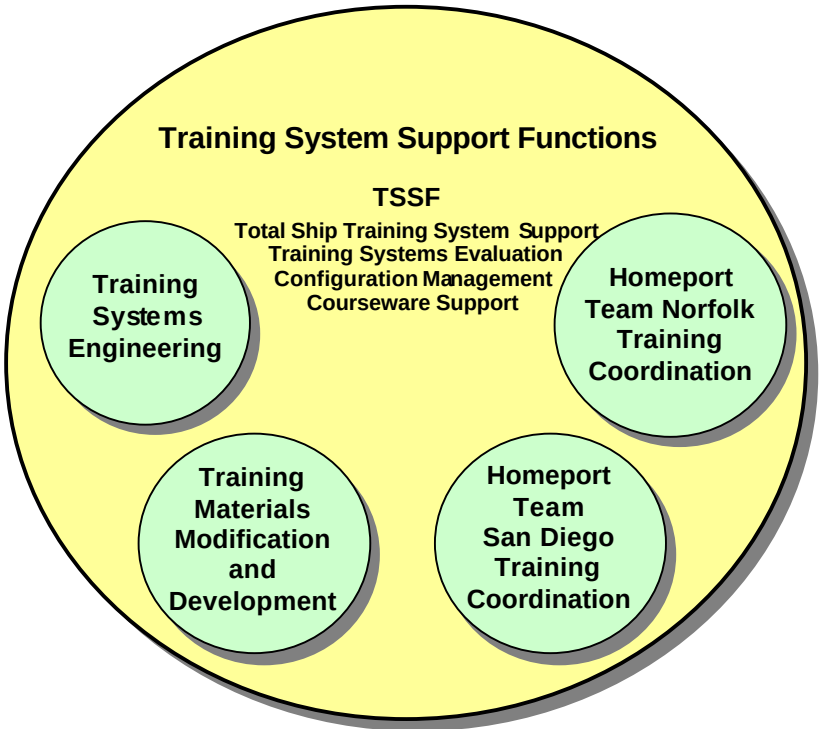
Integrated Logistic Support



LPD 17's design for supportability, coupled with the TEAM 17 approach to Integrated Logistic Support, provides a single integrated support framework, enabling warfighters to focus on mission and readiness.

Key Features	Benefit/Rationale
• Balanced mix of legacy and alternative support elements	• Best value driven decision process results in optimal cost and performance
• Integration of supporting data environments via IPDE	• Single authoritative source or access to ship support data eliminates inconsistencies
• Logistic elements fully integrated into Total Ship Systems Engineering approach	• Continuation of Concurrent Engineering Supportability Analysis (CESA) into the life cycle extends program savings
• Maintenance and Modernization Planning integrated with ILS	• Maintenance and modernization activities will be logistically supported
• IPDE based ILS system provides extensive suite of metrics	• Performance measurement will be based on meaningful outcomes metrics

Training



Life Cycle Support of the unique LPD 17 Training environment will receive focused management through an integrated Government-Industry Training System Support Activity within the LCE&S structure.

Key Features	Benefit/Rationale
• Through life support of the LPD 17 Total Ship Training System (TSTS)	• Shipboard training efficiency and crew proficiency sustained via TSTS
• Active Navy involvement and oversight of curriculum management	• Training content and improvements are driven by warfighter needs
• Training configuration management tightly coupled with total CM approach	• Accuracy and authority of training materials maintained
• Training System Support integrated with Total Ship Systems Engineering for all maintenance and modernization	• Integration of human systems implications of maintenance and modernization
• TSTS, IPDE, and FSC training organizations provide depth of support to shipboard Training Department	• Well coordinated shore support allows shipboard trainers to focus on execution, maximizing training time


LPD 17
TEAM 17